Symbol	Name	Synonyms	Organism
SERPINA1	serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 1	A1A, A1AT, AAT, Alpha-1-antiproteinase, alpha-1-antitrypsin, Alpha-1-antitrypsin, Alpha-1 protease inhibitor, MGC23330, MGC9222, PI, PI1, PRO0684, PRO2209, PRO2275	Homo sapiens

WikiGenes	edit this page **new**
UniProt	P01009, Q86U18, Q9UCM3
IntAct	P01009
PDB Structure	2QUG, 3DRM
OMIM	606963, 107400
NCBI Gene	5265
NCBI RefSeq	NP_000286, NP_001002235
NCBI RefSeq	NM_001002236, NM_001127704
NCBI UniGene	5265
NCBI Accession	ABG73380, CAA23755

Homologues of SERPINA1 ...

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On the other hand, elastases bound to α-2-M [?] are **protected** against α-1-PI inhibition but can free themselves by proteolysis and exhibit elastolytic activity. [1988]

Role of alpha-1-antichymotrypsin deficiency in **promoting** cirrhosis in two siblings with heterozygous alpha-1-antitrypsin deficiency phenotype SZ. [2002]

Patients with inflammatory arthropathies had significantly higher levels of inactivated alpha 1AT (i alpha 1AT) and **inactivated** alpha 1ACT (i alpha 1ACT) in SF (as determined with monoclonal antibodies specific for the inactivated [i.e., proteolytically inactivated and/or complexed] forms of these inhibitors) than patients with OA ($P < 0.005$). [1993]

These results suggest that if genetic variation at the AACT locus does **influence** the outcome of alpha 1 antitrypsin deficiency, such variation is not in linkage disequilibrium with the AACT polymorphism reported here. [1988]

METHODS: We examined PMN-elastase **complexed** with alpha 1-antitrypsin (alpha 1-AT), chymotrypsin, and alpha 2-macroglobulin by ELISA in feces and plasma. [1995]

RESULTS: Most PMN-elastase was not complexed with alpha 1-AT, chymotrypsin, or alpha 2-macroglobulin in feces, whereas most plasma PMN-elastase was **complexed** with alpha 1-AT. [1995]

In BAL there was preferential binding and inactivation of HNE by the hamsters' **alpha-1-protease inhibitor** (α-1-PI) whereas PPE was preferentially **bound** by alpha-2-macroglobulin [?] (α-2-M [?]). [1988]

Inhibition of transferrin **binding** by the acute-phase proteins alpha 1-AT and alpha 2-MG is competitive. [1993]

These acute-phase proteins were the protease inhibitors alpha 2-macroglobulin (alpha 2-M) and alpha 1-antitrypsin (alpha 1-AT) and the iron-**binding** proteins transferrin (TF) and lactoferrin (LF). [1994]

alpha 1-Antitrypsin (alpha 1-AT) is an acute phase plasma protein predominantly derived from the liver which **inhibits** neutrophil elastase. [1993]

Alpha 1-Antitrypsin (alpha 1AT) deficiency is characterized by insufficient amounts of alpha 1AT to **protect** the lower respiratory tract from neutrophil elastase, resulting in emphysema. [1989]

With this background, we hypothesized that homozygous inheritance of the Z-type may confer an added risk beyond a simple deficiency of alpha 1AT by virtue of an inability of the Z-type alpha 1AT molecule to **inhibit** neutrophil elastase as effectively as the common M1-type molecule. [1987]

To evaluate this hypothesis, the functional status of alpha 1AT from PiZZ individuals (n = 10) was compared with that of alpha 1AT from PiM1M1 individuals (n = 7) for its ability to **inhibit** neutrophil elastase (percent inhibition) as well as its association rate constant for neutrophil elastase (K association). [1987]

Using a model system that reproduced the relative amounts of alveolar macrophages and alpha 1AT found in the epithelial

lining fluid of the lower respiratory tract, we observed that smokers' macrophages caused a 60 +/- 5% reduction in the ability of alpha 1AT to **inhibit** neutrophil elastase. [1987]

Homozygous inheritance of the null bellingham alpha 1-antitrypsin (alpha 1AT) gene is associated with early-onset emphysema, resulting from the lack of alpha 1AT to **protect** the lung from neutrophil elastase. [1988]

The clones produced three mRNA transcripts (5.8, 4.8, and 2.4 kilobases) containing human alpha 1AT sequences, secreted an alpha 1AT molecule recognized by an anti-human alpha 1AT antibody, with the same molecular mass (52 kDa) as normal human alpha 1AT and that **complexed** with and **inhibited** human neutrophil elastase. [1987]

Evaluation of surface-stimulated neutrophils by [35S]methionine labeling and anti-alpha 1-AT immunoprecipitation demonstrated increased secretion of alpha 1-AT compared with that of resting neutrophils, with some of the secreted alpha 1-AT capable of forming **complexes** with NE. [1996]

The immunologic NE **complex** with alpha 1-protease inhibitor (alpha 1-PI) was released significantly higher in the LAA (+) group than in the LAA(-) group (17.4 +/- 6.5 versus 1.8 +/- 0.6 micrograms/L, respectively, $p < 0.05$). [1995]

Plasma was analysed for neutrophil elastase, interleukin (IL)-8 and neutrophil elastase in **complex** with alpha 1-protease inhibitor (alpha 1PI). [1996]

Reversible inhibition of neutrophil elastase by thiol-**modified** alpha-1 protease inhibitor. [1991]

The "deficiency" group of alpha 1-antitrypsin (alpha 1AT) alleles is characterized by alpha 1AT genes that code for alpha 1AT present in serum but in amounts insufficient to **protect** the lower respiratory tract from progressive destruction by its burden of neutrophil elastase. [1988]

Thus, sarcoidosis (mostly lymphocytic) is associated with enhanced macrophage-derived proteolytic activity in BAL, while CVD patients both with and without lung disease have increased neutrophil counts and neutrophil elastase **complexed** to alpha 1-protease inhibitor and presumably inactive in BAL. [1990]

However, the alpha 1-AT in these patients has a reduced ability to **associate** with and **inhibit** the action of neutrophil elastase. [1992]

In these patients, neutrophil elastase appears to be **inactivated** by high levels of alpha 1-AT, thus preventing excess protease action. [1992]

The major function of A1AT is to **inhibit** neutrophil elastase; A1AT does so through an active site centered around Met358 contained within an external stressed loop on the surface of the molecule. [1988]

A major physiological role of AAT is to **protect** the lung from the destructive **effects** of excess uninhibited neutrophil elastase. [2009]

Despite its lack of carbohydrates, the r alpha-1-AT **inhibited** human neutrophil elastase with an association rate constant similar to that of p alpha-1-AT. [1987]

Western blot analysis showed that this murine muscle-secreted human AAT (hAAT) formed a **complex** with human neutrophil elastase in a dose-dependent manner. [2006]

Most importantly, Arg358 alpha 1-antitrypsin decreased the **release** of 1.11 +/- 0.16 micrograms/ml human neutrophil elastase by 43%. [1994]

Alpha 1-antitrypsin Pittsburgh (Met358-->Arg) **inhibits** the contact pathway of intrinsic coagulation and alters the **release** of human neutrophil elastase during simulated extracorporeal circulation. [1994]

alpha 1-Antitrypsin (alpha 1AT) is a highly pleomorphic 52-kDa serum glycoprotein that **functions** as the major inhibitor of neutrophil elastase. [1987]

AAT formed a **complex** with neutrophil elastase. [1994]

We suggest that stromelysin may potentiate the activity of neutrophil elastase by proteolytically **inactivating** alpha 1AT. [1991]

Coal workers had significantly elevated levels of neutrophil elastase in BAL fluid **complexed** with alpha 1-antitrypsin (P less than 0.01) and normal levels of alpha 1-antitrypsin. [1990]

Human neutrophil elastase **complexed** to alpha 1-antitrypsin was increased in the patient's plasma, while the levels of the complexes thrombin-antithrombinIII and plasmin-alpha 2-antiplasmin, indicating recent coagulation or fibrinolysis, respectively, were not elevated. [1989]

AAT deficiency results in loss of protection in the lung against neutrophil elastase (NE) the major **target** for AAT. [1994]

Incubation of 3H-rSLPI-HNE **complex** with alpha 1-protease inhibitor for 3 hours at 37 degrees C decreased the amount of complex compared with incubation in the presence of bovine serum albumin (70% vs 27% dissociated). [1990]

None of the monoclonal antibodies could detect 200 ng of free HNE, or HNE in **complex** with AAT, by Western blot analysis, which was easily detected by polyclonal antibodies. [2008]

Preferential inactivation of HNE by a-1-PI may be one mechanism that accounts for the lesser emphysema-**inducing** potency of HNE than of PPE. [1988]

In conclusion, F alpha 1AT is **expressed** in serum at low normal levels but is dysfunctional in its ability to **inhibit** HNE

. [1996]

In addition to its direct elastolytic properties, this metalloelastase may also promote elastolysis by cleaving alpha 1-antiproteinase and thus **protecting** neutrophil elastase from inhibition. [1991]

An ELISA for neutrophil elastase (ELA) in **complex** with alpha 1-protease inhibitor (PI) (alpha 1-antitrypsin) was developed in microtitre plates and compared to the ELISA kit from MERCK (2-h version). [1993]

Neutrophil elastase and its **complex** with alpha 1-antitrypsin in soluble and insoluble fractions of nasal secretions of chronic sinusitis. [1991]

Immunoreactive neutrophil elastase (NE) and its **complex** with alpha 1-antitrypsin (AT) was measured by double antibody enzyme linked immunosorbent assay (ELISA) in nasal secretions of chronic sinusitis (CS). [1991]

This implies that this form of A1AT is **expressed** at normal levels in serum but is functionally impaired as an inhibitor of HNE. [1997]

Multiple forms of alpha-1-antiproteinase in the rabbit plasma implicate the unknown **functions** other than the inhibition of neutrophil elastase. [1998]

3. In normal conditions, alpha 1-antitrypsin **protects** the lungs from destruction by the proteolytic neutrophil elastase. [1993]

1. alpha 1-antitrypsin is an antiprotease that **inhibits** the neutrophil elastase enzyme, and belongs to a family of structurally related serine proteinase inhibitors (serpins). [1993]

METHOD: Alpha-1-antitrypsin from a female patient aged 75 years with the rare genotype PLowell NullBellingham was studied for its ability to **inhibit** human neutrophil elastase in a time dependent manner. [1995]

Emphysema is caused by the protease-antiprotease imbalance when smoking-induced release of neutrophil elastase in the lung is inadequately **inhibited** by the deficient levels of AAT, the major inhibitor of neutrophil elastase. [2005]

alpha 1-Antitrypsin is a circulating serine proteinase inhibitor that **protects** the lungs against proteolysis by the enzyme neutrophil elastase. [1993]

Neutrophil elastase and its **complex** with alpha 1-antitrypsin in the pathogenesis of chronic suppurative otitis media. [1992]

Neutrophil elastase (NE) and its **complex** with alpha 1-antitrypsin were quantified in ear discharges from 15 patients with chronic suppurative otitis media (CSOM), and their levels were compared to those in middle ear effusions from 10 pediatric patients with chronic otitis media with effusion (OME). [1992]

We also discuss the current literature on biosynthesis of alpha 1-AT and how its synthesis may be tightly **regulated** by the net balance of neutrophil elastase and alpha 1-AT at sites of inflammation/tissue injury. [1989]

Oxidant species produced by human polymorphonuclear leukocytes (PMN) inactivate alpha-1-protease inhibitor and thus may indirectly **enhance** neutrophil elastase-induced proteolysis. [1987]

These results demonstrate that all of the detectable immunoreactive pancreatic elastase 2 in normal human plasma is proelastase 2 **bound** to alpha 1-protease inhibitor. [1980]

The alpha 1-protease inhibitor-**bound** immunoreactive elastase 2 has been dissociated by incubation with hydroxylamine, and the resulting immunoreactive product isolated by gel filtration on Sephadex G-100. [1980]

A peak of immunoreactive pancreatic elastase 2 with a molecular weight consistent with that of a **complex** of elastase 2 and alpha 1-protease inhibitor (also referred to as alpha 1-antitrypsin) can be detected by radioimmunoassay in normal human serum or plasma (Geokas et al., J. Biol. Chem. 252:61-67, 1977). [1980]

We have constructed plasmid DNA vectors that contain Epstein-Barr virus (EBV) sequences and the human gene (SERPINA1) **encoding** alpha1-Antitrypsin [?] (AAT [?]). [2001]

The acute-phase protein alpha 1-antitrypsin **inhibits** growth and proliferation of human early erythroid progenitor cells (burst-forming units-erythroid) and of human erythroleukemic cells (K562) in vitro by interfering with transferrin iron uptake. [1994]

We have previously shown that the hepatic acute-phase protein alpha 1-antitrypsin (alpha 1-AT) **inhibits** transferrin (tf) binding to its receptor (tfR) of human placental membranes. [1994]

The acute-phase protein alpha 1-antitrypsin (alpha 1-AT) has been shown to **inhibit** the **binding** of transferrin to its cell-surface receptor. [1996]

There was a significant correlation between clearance of alpha 1-antitrypsin and serum levels of retinol-**binding** protein and transferrin in patients with ulcerative colitis and with retinol-binding protein in patients with Crohn's disease. [1991]

Clearance of alpha 1-antitrypsin reflects disease activity in inflammatory bowel disease and correlates with serum levels of rapid-turnover proteins such as retinol-**binding** protein and transferrin, which are markers for the presence of protein-calorie malnutrition. [1991]

Laboratory tests for fecal alpha 1-antitrypsin and an indium III-**labeled** plasma transferrin nuclear scan revealed a protein-losing enteropathy. [1994]

The acute-phase protein alpha 1-antitrypsin (alpha 1-AT) completely **inhibits binding** of diferric Tf to TfRs on human

skin fibroblasts in a dose-dependent fashion. [1998]

The protein C inhibitor gene spanned about 13 kilobase **pairs** and consisted of 5 exons and 4 introns as do the genes for human alpha 1-antitrypsin, alpha 1-antichymotrypsin, heparin cofactor II and rat angiotensinogen. [1993]

The major physiological role of the serine protease inhibitor alpha 1-antitrypsin (alpha 1-AT) is to **protect** elastic fibers in the lung from excessive hydrolysis by neutrophil elastase. [1988]

Secretory leukoprotease inhibitor (SLPI) and alpha 1-protease inhibitor (alpha 1-PI) are powerful antiproteases currently under investigation for their potential to **protect** the lung from neutrophil elastase (NE). [1997]

Sputum NE/AAT **complex** and MPO levels were lower on rAAT compared to placebo. [2006]

The in vitro effects of the Pseudomonas aeruginosa-derived phenazine pigments pyocyanin and 1-hydroxyphenazine (1-hp) on neutrophil elastase **release** and myeloperoxidase-**induced** inactivation of alpha-1-protease inhibitor (alpha 1-PI) were investigated. [1992]

Alpha-1-antitrypsin **inhibits** a variety of proteases but its primary **target** is neutrophil elastase, an extracellular endopeptidase capable of degrading most protein components of the extracellular matrix. [2006]

A recombinant fusion protein was constructed consisting of an antihuman pigR [?] single-chain Fv (scFv) antibody **linked** to human alpha(1)-antitrypsin (A1AT), an inhibitor of NE. [1999]

Polymers of Z alpha 1-antitrypsin accumulate within hepatocytes to form inclusion bodies that are **associated** with juvenile cirrhosis and hepatocellular carcinoma. [2000]

We postulated that increased Cathepsin B [?] and MMP-2 in acute and chronic lung diseases are due to the presence of high levels of extracellular NE [?] and that expression of these proteases could be **inhibited** by A1AT augmentation therapy. [2008]

Short-term variability of biomarkers of proteinase activity in patients with emphysema **associated** with type Z alpha-1-antitrypsin deficiency. [2005]

Purification of proteinase-like and Na+/K(+)-ATPase **stimulating** substance from plasma of insulin-dependent diabetics and its identification as alpha 1-antitrypsin. [1992]

Activation of IRP by alpha 1-AT is **associated** with a marked increase in transferrin receptor (trf-rec) mRNA levels in K562 and **enhanced** cell-surface expression of transferrin-binding sites, whereas ferritin production is decreased, although ferritin mRNA levels remain unchanged. [1996]

BACKGROUND: Severe alpha1-antitrypsin (AAT) deficiency **associated** with low AAT blood concentrations is an established genetic COPD risk factor. [2008]

Thirty-nine stable cystic fibrosis (CF) patients (10 with Bc) were enrolled in a study to determine the **effect** of alpha-1-antitrypsin on airways inflammation. [2007]

These results indicate that this AAT enhancer polymorphism is **associated** with better pulmonary prognosis in CF. [2001]

To investigate the mechanism(s) by which alpha 1-AT may be **inactivated** in CF airway secretions, sputum samples were obtained from nine patients during respiratory physiotherapy. alpha 1-AT was measured by radial immunodiffusion. [1989]

Within-subject variation of elastase/alpha 1-protease inhibitor **complexes** and lactoferrin in plasma. [1993]

Within-subject variation of elastase/alpha 1-protease inhibitor **complexes** and lactoferrin over a short time was studied in six young men who had blood samples drawn every 4 h over 2 days. [1993]

From within-subject variation, between-subject variation and analytical variation, indices of individuality were calculated as 1.1 and 1.8 for elastase/alpha 1-protease inhibitor **complexes** and lactoferrin, respectively. [1993]

Dot blot analysis of the polymerase chain-reaction-amplified DNA derived from the proband and other family members showed both mutations to be **associated** with an alpha 1-AT deficiency phenotype. [1990]

The human alpha-1-antitrypsin (AAT) gene **encodes** the major serine protease inhibitor in plasma. [1990]

An anti-elastase activity assay showed that murine muscle-**secreted** hAAT inhibited elastase with equal capacity as hAAT purified from plasma. [2006]

The alpha1-AT/PI2 deficient mouse will be a useful animal model for elucidating the **function** of alpha1-AT in fetal development, studying the mechanisms of chronic inflammatory disease and evaluating therapeutic candidates for the treatment of inflammatory disease. [2004]

Size fractionation of CM from activated monocytes by fast protein liquid chromatography indicated that SAA [?]- and CRP-**inducing** activity eluted as a single peak with a Mr of approximately 18 kDa. alpha 1-Antitrypsin, which also failed to respond to IL-1 beta or TNF alpha, was induced by both CM and medium from COLO-16 cells. [1988]

TNF-alpha [?]-**induced** activation of proMMP-9 by the explants of human skin was **inhibited** by alpha-ACT but not by related alpha-1-antitrypsin [?]. alpha-ACT specifically attenuated maturation of proMMP-9 but not proMMP-2 or proMMP-13. [2008]

We have previously observed that mice exposed to cigarette smoke and treated with exogenous alpha(1)-antitrypsin (A1AT) were **protected** against the development of emphysema and against smoke-**induced** increases in serum TNF-alpha [?]. [2007]

The data suggest oxidative inactivation of alpha 1-protease inhibitor by **secreted** myeloperoxidase and hydrogen peroxide. [1983]

The possible significance of A1AT production of monocytes and macrophages may be the local **control** of granulocytic proteases such as elastase and cathepsin G. [1992]

TGF-beta1 expression in the alveolar wall was higher in patients with smoking-**associated** emphysema than in cases with AAT-deficiency emphysema (p < or = 0.05). [2005]

A1AT partially **inactivated** the serine protease activity in GC frass, while GC frass cleaved A1AT in a dose- and time-dependent manner. [2007]

A human serpin alpha 1-antitrypsin variant was engineered to specifically **inhibit** furin. [1995]

Furin was specifically **inhibited** by alpha 1-antitrypsin Pittsburgh (358 Met-->Arg), (K1/2 = 3 microM) but not by 50 microM normal antitrypsin M or by antithrombin, however, antithrombin/heparin was a good inhibitor (K1/2 = 9 microM). [1994]

We conclude from this study that in vivo C1inh is the predominant inhibitor of FXIa, but that FXIa-a1AT **complexes** due to their relatively long t 1/2 may be the best parameter to assess FXI activation in clinical samples. [1996]

RESULTS: MMP-1 and -9 **inactivated** AAT in vitro. [2007]

We show that pseudomonas elastase inactivates monocyte-derived alpha 1-AT by limited proteolysis but, in so doing, alpha 1-AT becomes recognized by the serpine-enzyme **complex** receptor and **mediates** an increase in de novo synthesis of alpha 1-AT in these cells. [1991]

AAT Deficiency **affects** at least 120.5 million carriers and deficient subjects worldwide for the two most prevalent deficiency alleles PIS and PIZ. [2005]

In contrast, alpha 1-AT **produces** only minor changes in IRP activity, and subsequently in trf-rec expression and ferritin synthesis in THP-1 cells. [1996]

Here we demonstrate that in human erythroleukaemic cells (K562) alpha 1-AT **enhances** the **binding** affinity of iron-regulatory protein (IRP), the central regulator of cellular iron metabolism, to iron-responsive elements. [1996]

Due to this long t1/2, FXIa-a1AT **complexes** were predicted to show the highest levels in plasma samples from patients with activation of FXI. [1996]

Oncostatin M **induced** alpha1-antitrypsin (AAT) gene expression in Hep G2 cells is mediated by a 3' enhancer. [2002]

The acute-phase protein alpha 1-antitrypsin **inhibits** transferrin-receptor binding and proliferation of human skin fibroblasts. [1998]

Thus, A1AT **linked** to an antihuman pIgR [?] scFv was delivered in receptor-specific fashion from the basolateral to apical surface and was released as an active antiprotease, indicating that it is feasible to deliver therapeutic proteins to the apical surface of epithelia by targeting the pIgR [?]. [1999]

The role of AAT in CVD has not been definitively assessed and its **effect** on longevity has not yet fully been studied. [2007]

Growth hormone **regulates** the hepatic mRNA levels of alpha 1-antitrypsin and two contrapsin-like mRNAs in the rat. [1989]

Intramuscular administration of 1 x 10(11) DRP [?] per animal of rHSV-**produced** rAAV1/AAT and rAAV9/AAT resulted in hAAT [?] protein expression of 5.4 x 10(4) and 9.4 x 10(5) ng ml(-1) serum respectively, the latter being clinically relevant. [2009]

Matrix metalloprotease polymorphisms are **associated** with gas transfer in alpha 1 antitrypsin deficiency. [2009]

The inflammatory markers C-reactive protein, white blood cell count, serum lactoferrin, neutrophil elastase/alpha 1-antitrypsin complex, and tumour necrosis factor alpha were measured at the start and end of each antibiotic course. [1994]

Neutrophil elastase (NE), neutrophil elastase/AAT complexes (sNEC), interleukin-8 (IL-8), TNF-receptor 1 (sTNFr), and myeloperoxidase (MPO) were measured in sputum and urinary desmosine concentration determined. [2007]

The hepatic acute-phase proteins alpha 1-antitrypsin and alpha 2-macroglobulin **inhibit binding** of transferrin to its receptor. [1993]

However, the inhibitor profile obtained with alpha 1-antiproteinase inhibitor, alpha 1-antichymotrypsin, and alpha 2-macroglobulin suggested membrane-**bound** forms of elastase and cathepsin G were mediating, in large part, the proteolysis observed. [1995]

The bactericidal effects of cathepsin G against Capnocytophaga sputigena and A. actinomycetemcomitans were **inhibited** by alpha-1-antichymotrypsin, alpha-1-antitrypsin, and alpha-2-macroglobulin [?] but not by bovine serum albumin. [1991]

The results were as follows: (1) No significant differences were seen between patients with PMD and **control** subjects with respect to either alpha 1-antichymotrypsin, antithrombin III, and alpha 1-antitrypsin or alpha 2-macroglobulin and inter-alpha-trypsin inhibitors. [1985]

Unexpectedly, the nucleotide sequence of TBG is closely homologous to those **encoding** the plasma serine antiproteases alpha 1-antichymotrypsin and alpha 1-antitrypsin. [1986]

These data suggest an unexpected role for serpina1 and serpina3 in **regulating** the bone marrow hematopoietic microenvironment as well as influencing the migratory behavior of hematopoietic precursors. [2005]

The results suggest that the low adhesiveness of BHK cells and leucocytes on plain polystyrene in sera-containing media is due both to the low **binding** of fibronectin and to the binding of serum albumin, alpha-1-antitrypsin and alpha-2-macroglobulin. [1984]

The structure and organization of the kallistatin gene are similar to those of the genes **encoding** alpha 1-antichymotrypsin, protein C inhibitor, and alpha 1-antitrypsin. [1994]

Serine protease inhibitors serpina1 and serpina3 are **down-regulated** in bone marrow during hematopoietic progenitor mobilization. [2005]

CONCLUSIONS: Because AAT and SLC11A1 proteins directly or indirectly **function** as inhibitors of human leukocyte elastase, mutations in the AAT and SLC11A1 genes may change the balance between elastase produced by leukocytes during phagocytosis. [2008]

Addition of A1AT to pneumonia BAL greatly reduced NE [?] -**induced** cathepsin B [?] and MMP-2 expression in macrophages in vitro. [2008]

When neutrophil elastase is already **attached** to the elastin fibres the smaller molecules SLPI and elafin appear to be better inhibitors of this enzyme than larger inhibitors such as A1AT and HEI. [1997]

The NB1 -**bound** PR3 was active and was cleared from the surface by alpha-1-protease inhibitor. [2008]

After stimulation with oncostatin M (OSM), interleukin-6 (IL-6) or tumor necrotic factor alpha (TNF alpha), hAE cells increased the expression of AAT, while the expression of MMP9 was reduced by OSM and **induced** by TNF alpha. [2009]

Here we report that gp78, a ubiquitin ligase (E3) **pairing** with mammalian Ubc7 [?] for ERAD, ubiquitinates and facilitates degradation of ATZ, the classic deficiency variant of AAT having a Z mutation (Glu 342 Lys). [2006]

Silencing SVIP expression markedly **enhances** the formation of gp78-p97 /VCP-Derlin1 complex, which correlates with increased degradation of CD3delta and misfolded Z variant of alpha-1-antitrypsin, established substrates of gp78. [2007]

The aim of this study was to determine the role of genetic variants of the main serum antiproteinases alpha-1-antitrypsin (AAT) and alpha-2-macroglobulin (A2M) for the course of chronic pancreatitis. [2002]

The Mr-96,000 complex did not react with antibodies to AT III or to alpha 1-antitrypsin, and it was detected in normal quantities after incubating 125I-thrombin with plasma immunodepleted of AT III, alpha 2-antiplasmin, alpha 2-macroglobulin, C1 inactivator, alpha 1-antichymotrypsin, or inter-alpha-trypsin inhibitor. [1981]

These findings suggest that the net lung protease-antiprotease balance in ARDS is shifted largely in favor of the antiproteases (chiefly A1AT), and that the antiproteases, A1AT and A2MG, have similar affinities for neutrophil elastase in vivo. [1988]

The proteolytic inhibiting activity, in spite of the presence of immunoreactive inhibitors (n = 18). alpha 1-antichymotrypsin had a precipitate pattern similar to group 1, whereas alpha 1-antitrypsin had a major fraction with slightly retarded mobility and two minor peaks in the alpha 1-and beta-regions. [1982]

There was no significant effect of cystatin and natural plasma proteinase inhibitors alpha 1-antitrypsin, alpha 1-antichymotrypsin, alpha 2-macroglobulin and antithrombin-III/heparin, on the activity of the CP. [1994]

The serum levels of alpha 2-macroglobulin (alpha 2-MG), alpha 1-antitrypsin (alpha 1-AT), ceruloplasmin (CER), transferrin (TRSF) and alpha 1-acid glycoprotein (alpha 1-ac.GL) were within the normal range. [1995]

Increased levels of serum alpha 1-antitrypsin, alpha 2-macroglobulin, haptoglobin, ceruloplasmin, and thyroxine-binding globulin were observed in both series of patients when compared to their respective controls. [1996]

We studied secretory leukocyte protease inhibitor (not previously addressed), and alpha 1-antitrypsin, alpha 1-antichymotrypsin, alpha 2-macroglobulin and elastase. [1992]

No immunologic relationship was confirmed between the inhibitor and other well-known plasma inhibitors such as alpha 1-antitrypsin, alpha 2-macroglobulin, alpha 1-antichymotrypsin, antithrombin III, C1-in-activator, and alpha 2-plasmin inhibitor. [1985]

HSF-II stimulates cysteine protease inhibitor, alpha 1-antichymotrypsin, alpha 1-antitrypsin, fibrinogen, and hemopexin [?], and acts synergistically with dexamethasone to stimulate alpha 2-macroglobulin [?]. [1987]

Furthermore, hK2 formed molecular complexes with alpha 2 -antiplasmin, alpha 1-antichymotrypsin, antithrombin III and alpha 2-macroglobulin but not with alpha 1-antitrypsin. [1997]

Immunohistochemically, alpha-fetoprotein (AFP), alpha-1-antitrypsin, alpha-1-antichymotrypsin, fibrinogen and ferritin were all negative. [1996]

While 19/33 HCC were positive for A1AT, all 33 HCC contained immunoreactive A1ACh. [1984]

The most widely recognized candidate gene in COPD is SERPINA1, although it has been suggested that SERPINA3 may also play a role. [2006]

Most tumour cells, however, expressed vimentin, whereas a granular cytoplasmic immunoreactivity for alpha-1-antitrypsin

antitrypsin and alpha-1-antichymotrypsin was shown in the giant cells. [1987]

Within 5 days after the onset of acute pancreatitis, the accuracy rates for detecting necrotizing pancreatitis were 86%, 84%, 82%, 72%, and 69%, using cutoff levels of 120 mg/L for CRP, 120 micrograms/L for PMN-elastase, 270 U/L for LDH, 1.5 g/L for alpha 2-M, and 3.5 g/L for alpha 1-AT, respectively. [1991]

RESULTS: High molecular mass protease inhibitors (alpha 1 protease inhibitor, alpha 2 macroglobulin, and soya bean trypsin inhibitor) and synovial fluid from patients with rheumatoid arthritis were effective in blocking proteoglycan loss from sections treated with free elastase, but their activity towards cartilage bound elastase was much reduced. [1996]

Human hepatocytes synthesized albumin, transferrin, fibrinogen, alpha 1-antitrypsin, alpha 1-antichymotrypsin, alpha 1-acid glycoprotein, haptoglobin, alpha 2-macroglobulin, and plasma fibronectin and excreted them to the culture medium. [1990]

Notably, we demonstrate significant regulation of alpha-1-antitrypsin, alpha-2-macroglobulin, hemoglobin subunit alpha, vitamin D-binding protein, major urinary proteins, and transthyretin [?] (up to eight-fold) in serum of lung tumor bearing mice. [2007]

The syncytiotrophoblast was immunonegative in the majority of cases, especially for albumin, whereas the cytotrophoblast showed a positive (although variable) reaction to A1AT, A1AC, albumin, IgG and orosomucoid antibodies. [1986]

Levels of both i alpha 1AT and i alpha 1ACT correlated significantly with lactoferrin and elastase levels. [1993]

Histochemically the tumor contained argyrophilic cells as well as cells that reacted positively with the antibodies to alpha-1-antitrypsin, alpha-1-antichymotrypsin, carcinoembryonic antigen and lysozyme. [1983]

Polyclonal antisera to alpha 1-antitrypsin, alpha 1-antichymotrypsin, alpha 2-antiplasmin, inter-alpha-trypsin inhibitor, plasminogen activator inhibitors-1 and -2, and a monoclonal antibody to protease nexin-1 did not label the 33-, 31-, and 27-kDa inhibitors. [1995]

The absence of desmosomes, tonofibrillar bundles, and keratin and the presence of alpha-1-antitrypsin and alpha-1-antichymotrypsin favor fibrohistiocytic differentiation of the spindle cell component. [1987]

Immune reactions elicited in the sera of individuals exposed to nickel and cobalt were assessed by changes in the concentration of serum immunoglobulins IgG, IgA and IgM and serum proteins alpha 2 macroglobulin (A2M), transferrin (TRF), alpha 1-antitrypsin (A1AT), ceruloplasmin (CPL) and lysozyme (LYS). [1983]

We conclude that plasma PMN elastase level may be a more specific and sensitive inflammatory marker than alpha-1 antitrypsin, alpha-2 macroglobulin, ESR, and may be a good marker for diagnosis and follow up of the disease activity of the psoriatic patients. [1997]

We studied, by electrophoretic techniques, the physiochemical properties of 4 glycoproteins, alpha 1-antitrypsin, alpha 1-antichymotrypsin, alpha 1 [?]-acid glycoprotein and transferrin synthesized by three different human hepatoma cell lines. [1985]

Presence, activities, and molecular forms of cathepsin G, elastase, alpha 1-antitrypsin, and alpha 1-antichymotrypsin in bronchiectasis. [1995]

In Hep 3B cells, TGF-beta led to increased secretion of the positive acute-phase proteins alpha 1-protease inhibitor and alpha 1-antichymotrypsin and decreased secretion of the negative acute-phase protein albumin. [1990]

1H n.m.r. showed that polypeptide amide 1H-2H exchange was greater in the native forms of alpha 1-AT, alpha 1-ACT and C1-INH than in their cleaved forms, whereas for ovalbumin it was unchanged. [1992]

Also, all tumors displayed at least one of the three proteolytic enzymes assessed in this study (AAT, AACT, and CS), demonstrating the relative diagnostic nonspecificity of these determinants. [1988]

The demonstration of atypical histiocytic cells in the CSF and the immunohistochemical demonstration of lysozyme, alpha 1-antitrypsin and alpha 1-antichymotrypsin which are typical for histiocytes, underline the histiocytic origin of the tumor. [1987]

We found that serpina1 and serpina3 were transcribed in the bone marrow by many different hematopoietic cell populations and that a strong reduction in expression occurred both at the protein and mRNA levels during mobilization induced by granulocyte colony-stimulating factor or chemotherapy. [2005]

HLS2 is about 25-28% homologous to three human members of the plasma protease inhibitor family: antithrombin III, alpha 1-antitrypsin and alpha 1-antichymotrypsin. [1986]

We have used probes from the human genes PI, PIL, and AACT (alpha 1-antitrypsin, alpha 1-antitrypsin-related sequence, and alpha 1-antichymotrypsin) to make a pulsed-field map of the surrounding region of 14q31-32. [1990]

In this paper we show that the appearance of methionine in NCA is due to regularly copurified materials, which were immunologically identified as alpha-1-antitrypsin and alpha-1-antichymotrypsin-like proteins. [1984]

Paraffin sections from patients of DCM and normal hearts were also stained with a panel of antisera against LCA, and macrophage markers namely, lysozyme, alpha-1-antitrypsin (AAT) and alpha-1-antichymotrypsin (ACT). [1995]

The observation of a more aggressive behaviour in the two cases characterized by the absence of immunoreactivity for both A1ACT and A1AT suggests that the presence or absence of protease inhibitors could play a role in controlling tumour progression in PTC. [1998]

The results indicate that binding of human C5a to CD88 on HepG2 cells resulted in an increased production of alpha 1-antitrypsin - and alpha 1-antichymotrypsin -specific mRNA as assayed by RT-PCR. [1995]

To clarify these features, seven aneurysmal bone cysts were studied electron microscopically and immunocytochemically with endothelial (Factor VIII-related antigen, monoclonal endothelial marker) and histiocytic (alpha 1-antitrypsin , alpha 1-antichymotrypsin , lysozyme, acid phosphatase) markers. [1986]

The concentrations of IgG, IgA, IgM, Clq, C3c, C4, C9, C3A, Albumin, Transferrin , Alpha-1-antitrypsin , Alpha-2-macroglobulin were determined in the serum, aortic atherosclerotic intima and media of 8 patients. [1985]

All groups except that termed "meningitis" had similar alpha 2-m levels, but alpha 1-at and transferrin were significantly depressed in MS. [1979]

The proteins included IgA, IgG, IgM, B1C (C3), alpha 1-antitrypsin , alpha 2-macroglobulin, fibrinogen, albumin, LDL, HDL, alpha 1-acid glycoprotein, beta 2-glycoprotein, transferrin and ceruloplasmin. [1979]

The proteins identified in bladder washouts include albumin, transferrin , IgG gamma-heavy chain, Gc-globulin , alpha 1-antichymotrypsin , alpha 1-antitrypsin , alpha 1-acid glycoprotein, G4, IgG light chains, alpha 1-microglobulin, and low and high density lipoproteins. [1994]

Compared with PMN-elastase or IL-6 , increased plasma concentrations of such acute-phase proteins as alpha-1-antitrypsin or CRP , and consumption of the protease inhibitor alpha-2-macroglobulin , are later events that can be detected only 1 to 4 days later. [1993]

The deduced amino acid sequence shows moderate homology to human alpha 1-antitrypsin (38%), guinea pig contrapsin (35%), human alpha 1-antichymotrypsin (34%), and human proteinase C inhibitor (31%), all members of the serine protease inhibitor (serpin) family. [1995]

Immunohistochemically, the tumor cells were positive for vimentin, CD68 , alpha-1-antichymotrypsin and alpha-1-antitrypsin . [2005]

Occasional positivity was noted with factor XIIIa and alpha-1-antichymotrypsin , whereas no reactivity occurred with alpha-1-antitrypsin , actin, or S-100 [?] protein. [1998]

Erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), immunoglobulin A, G and M, and complements C3 and C4, interferon-gamma, interleukin-4 and alpha-1-antitrypsin (AAT), alpha-2-macroglobulin , ceruloplasmin, haptoglobin , and transferrin were measured. [2007]

Immunochemistry expressed alpha-1-antitrypsin , alpha-1-antichymotrypsin , vimentin , and focal neuron-specific enolase . [2005]

Immunolocalization of vimentin and desmin intermediate filament proteins and of alpha-1-antitrypsin and alpha-1-antichymotrypsin was identified in most of the 43 cases studied. [1996]

We studied the role of proteinase inhibitors (PIs) alpha 1-antitrypsin and alpha 1-antichymotrypsin in relation to lysozyme (LZM), and membrane attack complex (C5b-9) in renal tubular damage by immunohistochemical techniques. [1993]

Carcinoembryonic antigen, beta 2-microglobulin, alpha 1-antitrypsin or alpha 1-antichymotrypsin were detected in some of the eluates of the malignant tissues only. [1979]

Alveolar macrophage function was studied immunocytochemically using three monoclonal antibodies--macrophage CD 68 KP 1 (M), protein CD 11C (P), and anti-elastin (EL)--and three polyclonal antibodies--lysozyme (LZ), alpha-1-antitrypsin (AAT), and alpha-1-antichymotrypsin (AACT). [1995]

An immunohistochemical analysis using antibodies to cytokeratin, epithelial membrane antigen, alpha-1-antitrypsin , alpha-1-antichymotrypsin and factor XIIIa was performed in four cases of malignant fibrous histiocytoma and five cases of sarcomatoid carcinoma in the urinary tract. [1991]

Immunohistochemically, the tumor cells were positive for CAM5.2, cytokeratin (CK) 7, CK 20, trypsin, lipase, alpha-1-antitrypsin , and alpha-1-antichymotrypsin . [2002]

Histologic hallmarks of solid and cystic neoplasms were papillary growth, large intracytoplasmic granules, and immunoreactivity with alpha 1-antitrypsin , alpha 1-antichymotrypsin , phospholipase A2, and neuroendocrine markers (neuron-specific enolase [NSE], synaptophysin). [1991]

The kass. values for the other serpins tested (protease nexin I, protein C inhibitor , and mutants of alpha 1-antichymotrypsin and alpha 1-antitrypsin with P1 arginine residues) were at least 1000-fold higher, with P1-Arg-alpha 1-antitrypsin (kass. = 7 x 10(4) M-1.s-1) being the most effective inhibitor. [1993]

In patients with extrarenal disease, the inflammatory plasma protein response was often pronounced during exacerbation, as evidenced by markedly increased concentrations of C-reactive protein (CRP [?]), alpha 1-antichymotrypsin , alpha 1-antitrypsin , and orosomucoid. [1984]

The second-order inhibition rate constants k2/Ki* were 4300, 700, and 52 M-1 S-1 for alpha 1-antichymotrypsin , alpha 1-antitrypsin , and eglin c, respectively, indicating that, if heparin is present in vivo, the two former physiological inhibitors will be unable to prevent cathepsin G -mediated proteolysis. [1994]

The renin substrate angiotensinogen (AGT) belongs to a supergene family of proteins that also includes alpha 1-antitrypsin (AAT) and alpha 1-antichymotrypsin (ACT), acute-phase reactants with known serine proteinase inhibitory (serpin) function. [1992]

Immunohistochemically, alpha 1-antitrypsin -and alpha 1-antichymotrypsin -positive reactions were diffusely positive in most of the tumor cells, while staining for chromogranin, neuron-specific enolase, Grimelius, glucagon, insulin, and alpha-fetoprotein was negative in the tumor cells. [2000]

Corticosteroid-binding globulin (CBG) belongs to the superfamily of serine proteinase inhibitors which include alpha 1-antitrypsin, alpha 1-antichymotrypsin, and T4-binding globulin. [1993]

In this study, we describe the effect of leukemia inhibitory factor (LIF), interferon gamma (INF gamma) and dexamethasone (dex) on production of alpha 1-protease inhibitor (PI) and alpha 1-antichymotrypsin (ACT) and on glycosylation of PI in the human hepatoma cell line HepG2. [1993]

RCA-1 [?] stained microglia and hemosiderin whereas antisera to alpha 1-antitrypsin and alpha 1-antichymotrypsin only reacted with iron-depleted granules. [1988]

All cases were stained with periodic acid-Schiff with and without diastase and for alpha 1-antitrypsin, myoglobin, keratin , vimentin , muscle-specific actin, and alpha 1-antichymotrypsin , by using the avidin-biotin-immunoperoxidase method. [1991]

Neutralization of excess NE by delivering supplemental alpha 1-antitrypsin to the airways via aerosolization represents an exciting new potential therapy for CF lung disease. [1996]

The immunohistochemical panel included vimentin, various molecular weight keratins, epithelial membrane antigen (EMA), desmin , alpha-1-antitrypsin , and alpha-1-antichymotrypsin . [1993]

A1AT is the principal inhibitor of neutrophil elastase, such that a deficiency of A1AT results in insufficient anti-elastase protection in the lower respiratory tract, thus allowing neutrophil elastase to destroy alveolar structures. [1988]

RESULTS: All the tumors were CD10, vimentin , alpha-1-antitrypsin and alpha-1-antichymotrypsin diffusely positive (50% or more of the tumor cells staining) and CD56 showed focal positivity in all cases with 5-10% of tumor cells displaying immunolabeling. [2007]

Localization of CEA [?] , HCG, lysozyme, alpha-1-antitrypsin, and alpha-1-antichymotrypsin in gastric cancer and prognosis. [1986]

Neutrophil polymorphonuclear leukocytes (PMN) can inactivate the PMN-elastase inhibitor alpha-1-antitrypsin (A1AT) proteolytically, by using metalloproteinases normally stored as zymogens in myeloperoxidase (MPO)-negative granules. [1994]

Other human serum proteins including serum albumin, alpha 1-acid glycoprotein, alpha 1-antitrypsin, and immunoglobulin G as well as other protease inhibitors such as leupeptin, pepstatin, phenylmethylsulfonyl fluoride, and chymostatin did not affect the activity of DNA polymerase alpha. [1986]

IL-8 , total neutrophil elastase (NE), free elastase activity, alpha 1-antitrypsin (alpha 1-AT), and total leukocyte and neutrophil counts were evaluated in bronchoalveolar lavage fluids (BALF). [1996]

The HuH-7 human hepatoma cell line was stimulated by IL-1 and IL-6 to increase the synthesis of acute-phase proteins, e.g. serum amyloid A (SAA [?]), alpha 1 antichymotrypsin (ACT), alpha 1-protease inhibitor, alpha 1 acid-glycoprotein and haptoglobin, with the exception of the pentraxins (serum amyloid P and C-reactive protein). [1993]

The amino acid sequence shows 23 to 28% homology to those of five other protease inhibitors, plasminogen activator inhibitor (PAI), protein C inhibitor (PCI), alpha 1-antitrypsin (alpha 1-AT), antithrombin III (AT III), and alpha 1-antichymotrypsin (alpha 1-AC). alpha 2-PI seems to be the most distantly related among these inhibitors. [1987]

The therapeutic potential of HNE neutralising antiproteases, alpha-1-antitrypsin and elafin, in atherosclerosis, is discussed. [2008]

alpha 1-antitrypsin, the primary physiologic inhibitor of human leukocyte elastase, is proteolytically inactivated by several matrix metalloproteinases including interstitial collagenase, stromelysin and 92 kDa gelatinase. [1994]

1. This cluster also includes the genes encoding alpha 1-antichymotrypsin (AACT) and protein C inhibitor (PCI), as well as an alpha 1-antitrypsin-related sequence (ATR; gene symbol PIL). [1997]

Quantification of the functional capacity of the M3 protein as an inhibitor of neutrophil elastase demonstrated a Kassociation for neutrophil elastase of 10.1 +/- 1.5 x 10(6) M-1 s-1, a value comparable to the common normal M1(Val213) alpha 1AT . [1989]

In the pulmonary vein there was a significant increase in neutrophil expressed CD11b (P < 0.001), neutrophil elastase : alpha 1-antitrypsin complexes (P < 0.001), endothelin-1(P < 0.001) and thrombin-antithrombin complexes (P < 0.001) by the end of bypass compared with pre-operative levels. [1996]

Administration of G-CSF alone did not cause a decrease in the neutrophil elastase activity but increased plasma elastase/alpha 1-antitrypsin complex levels. [1994]

Brain tissue from five patients with superficial siderosis of the central nervous system was examined by immunocytochemistry for ferritin, glial fibrillary acidic protein (GFAP), alpha 1-antitrypsin, and alpha 1-antichymotrypsin, and by lectin affinity cytochemistry with biotinylated Ricinus communis agglutinin-1 (RCA-1 [?]). [1988]

To translate the potential advantages of recombinant adeno-associated virus type 1 (rAAV1) vectors into a clinical application for muscle-directed gene therapy for alpha1 -antitrypsin [?] (AAT [?]) deficiency, we performed safety studies in 170 C57BL/6 mice and 26 New Zealand White [?] rabbits. [2007]

Pronounced immunoreactivity for ubiquitin and alpha-1-antichymotrypsin could be found in all investigated tumours, while GFAP, neuron specific enolase, von Willebrand factor, vimentin, S-100 [?] protein, alpha-1-antitrypsin, actin, and the neurofilaments 68 kDa and 160 kDa showed mostly weak positivity in some cases. [1997]

The spots were cut from the gel, and 20 were identified by mass spectrometry as charge forms of 11 plasma proteins: Orosomucoid, transferrin, alpha-1 [?] microglobulin, zinc alpha-2 glycoprotein, alpha-1 antitrypsin, complement factor B, haptoglobin, transthyretin, plasma retinol binding protein, albumin, and hemopexin. [2007]

The xanthomatous tumor cells showed immunopositivity for epithelial membrane antigen (EMA), vimentin, fatty acid synthase and several histiocytic markers (CD68, Ki-M1p, MAC387, lysozyme, alpha 1-antitrypsin and alpha 1-antichymotrypsin). [2008]

Multivariate discriminant analysis and logistic regression analysis of response were performed on routine blood tests; serum levels of EPO, iron, ferritin, transferrin, and its receptor; World Health Organization (WHO) performance status; various cytokines; neopterin; stem cell factor; C-reactive protein; and alpha 1-antitrypsin. [1994]

Our findings are compatible with the hypothesis that major depression may be accompanied by inflammatory changes with higher levels of positive APPs (i.e., alpha 1AT, Hp, Cp, alpha 1S) and lower levels of visceral proteins (i.e., RBP [?], Tf, Alb). [1992]

Most of them, such as albumin, transferrin, Apo A-I, alpha 1-antitrypsin, fibrinogen beta-chain, IgG, appear to originate from plasma. [1986]

Although CRP will remain over time a useful marker, the role and implications of increased plasma concentrations of other acute phase proteins (APPs), such as alpha-1-antitrypsin (A1AT), alpha-1 glycoprotein (A1GP), haptoglobin (HG), ceruloplasmin (CP), and C3c and C4 complement fraction, in patients with ACS are still not completely defined. [2008]

4) The clear cells in solid areas had positive results for KL 1, alpha 1-AT, transferrin and VIP. [1992]

In normal parotid tissue, carcinoembryonic antigen, epithelial membrane antigen, Keratin, alpha 1-antitrypsin, alpha 1-antichymotrypsin, and S-100 [?] protein were found in all three types of ductal cells, somatostatin only in intercalated and striated ductal cells, and lysozyme only in acinar and intercalated ductal cells. [1996]

We elucidated four pH-dependent formation constants for the free PSA [?] with hydronium ion [H(+)], the PSA-ACT (alpha 1-antichymotrypsin), the PSA [?]-API (alpha 1-protease inhibitor), and the nonimmunoreactive PSA [?]-AMG (alpha 1-macroglobulin) complexes, respectively, to model the stability of the free to total PSA [?] ratios. [2004]

Pretreatment and in-treatment samples (2nd and 6th weeks) were measured by enzyme-linked immunosorbent assay (ELISA) (calprotectin, lactoferrin, transferrin, leukotriene B4, prostaglandin E2, thromboxane B2 and TNF alpha) or nephelometry (alpha 1-antitrypsin). [2004]

A sample of 121 Piaroa Indians from the Federal Amazonia Territory (Venezuela) was studied for the following serum protein polymorphisms: haptoglobin (HP [?]), group-specific component subtypes (GC), orosomucoid (ORM), third component of complement (C3), transferrin (TF) C subtypes (TF) and alpha 1-antitrypsin subtypes (PI). [1993]

After the 18th week of gestation, albumin, transferrin, Factor B, glu- and lys-plasminogen, antithrombin III, Gc-globulin, alpha 1-antitrypsin, alpha 2-HS-glycoprotein, several apolipoproteins (apo A-I, A-II, A-IV, C-II, C-III, D, E, J), retinol-binding protein, transthyretin and alpha-fetoprotein could be observed. [1993]

BAL from both pneumonia and A1AT deficient patients, containing free neutrophil elastase [?], had increased cathepsin B [?] and MMP-2 activities compared to BAL from healthy volunteers. [2008]

Percentage neutrophil elastase (NE) inhibitory capacity of BAL [?] fluid was low in both A1AT-deficient subjects and a cigarette-smoking normal subject. [2003]

The positive rate of GGT II was positively correlated to the volume of PHC (r = 0.324, P less than 0.05), but even in patients with small PHC (less than or equal to 65 cm3), the positive rate of GGT II (78.6%) was higher than that of AFP [?] (50.0%) and AAT (28.6%). [1990]

On the contrary, HFE C282Y and SERPINA1 mutations do not contribute to hepatocellular carcinoma development. [2008]

Twelve cases were analyzed by immunohistochemical methods for the presence of vimentin, desmin, muscle-specific actin, myoglobin, S-100 [?] protein, alpha 1-antitrypsin (AAT), alpha 1-antichymotrypsin (ACHT), cytokeratin (AE1/AE3), and epithelial membrane antigen. [1990]

The PHA S.R. showed significant negative correlations with serum levels of IAP, IS, alpha 1-acid glycoprotein and alpha 1-antitrypsin, but there were no such correlations between PFC R.I. and these glycoproteins in serum. [1984]

MAIN OUTCOME MEASURES: The slides were stained with the following commercially available antibodies: CD10, CD56, vimentin, alpha-1-antitrypsin, alpha-1-antichymotrypsin, neuron-specific enolase, chromogranin, synaptophysin, beta-catenin and E-cadherin. [2007]

alpha-1-Antitrypsin, alpha-1-antichymotrypsin, actin, and myosin [?] in uterine sarcomas. [1985]

Using the immunoperoxidase PAP [?] technique, a variety of soft-tissue tumors have been stained for the histiocyte markers alpha-1-antitrypsin (A1AT), alpha-1-antichymotrypsin (A1ACT) and lysozyme. [1982]

Various sialoglycoproteins like fetuin, transferrin, fibrinogen, alpha-1-antitrypsin, mucin [?] and goat-IgG are also effective in enhancing in vitro infectivity. [1987]

Overexpression of C/EBP [?]-beta in a rat yolk sac tumor cell line, AT-2-TC, increased production of AFP and other plasma proteins, including albumin, alpha-1-antitrypsin [?], hepatoglobin, and transferrin [?]. [2005]

In four areas with different types of atmospheric pollution 534 children of school age were examined for serum immunoglobulins (IgG, IgA, IgM and IgE), saliva IgA (sIgA), lysozymes (LYS) and acute phase reactants (alfa-l-antitrypsin - A1AT, alfa-2-macroglobulin -A2M, ceruloplasmin -CPL, transferrin - TRF [?]). [1990]

Other proteins which were present in very low amounts in the normal intima (transferrin, alpha 1-antitrypsin, apolipoprotein A-1, P56, P190) were found to be major proteins of intima with fibro-fatty lesion. [1992]

Variable reactivity in lesional cells were noted for vimentin, Alpha-1-antitrypsin (A1AT), factor XIIIa, CD68, CD95, CD117, Alpha-1-antichymotrypsin (A1ACT), CD34, AE1/3, S-100 [?] protein, EBER, CD63 and CD15. [2008]

METHODS: Blood endotoxin, antithrombin III (ATIII), secretory immunoglobulin A (sIgA), which was selected as a marker of cholestasis, C-reactive protein (CRP), and alpha-1-antitrypsin (AAT) concentrations were measured from the 20 patients undergoing curative gastrectomy for gastric cancer preoperatively and postoperatively. [2003]

Studies on alpha-1 antitrypsin deficiency in white (Caucasian) COPD and non-COPD populations in 6 countries were combined to obtain estimates of the prevalence of the PIS and PIZ deficiency alleles in the combined COPD and non-COPD cohorts. [2006]

CONCLUSION: Results of the present study indicate that postmenopausal women displaying the MHO phenotype also have a favorable inflammation profile as shown by lower CRP and alpha-1 antitrypsin levels compared with insulin-resistant women. [2005]

Tumour cells in dedifferentiated components were positive for alpha-1-antitrypsin and alpha-1-antichymotrypsin in all cases but one; neuron specific enolase, MB1 [?], MB2 and myosin [?] were positive with variety. [1992]

Proteins that were up-regulated in GBS included haptoglobin, serine/threonine kinase 10, alpha-1-antitrypsin, SNC73, alpha II spectrin, IgG kappa chain and cathepsin D preprotein, while transferrin, caldesmon, GALT, human heat shock protein 70, amyloidosis patient HL [?]-heart-peptide 127aa and transthyretin were down-regulated. [2007]

Neoplastic cells were negative for cytokeratin, CD79a, and CD3 and positive for CD18 [?], vimentin, lysozyme, and alpha-1-antitrypsin, most consistent with a diagnosis of histiocytic sarcoma. [2006]

Seven out of 16 and 4 out of 16 CA 125 [?] negative samples showed right positive IAP and right positive CRP [?] and AL-1-AT values, respectively. [1988]

GD was found to have the highest carrier frequency (1:17) followed by CF (1:23), FD (1:29), A1AT (1:65), ML4 (1:67) and FAC (1:77). [2008]

Alpha-1-antitrypsin (AAT) is a serine protease inhibitor whose deficiency could cause emphysema and liver disease and, as recently described, could be a risk factor for lung cancer development. [2006]